

<b>Masaryk University</b>	
<b>Faculty</b>	Faculty of Science
<b>Procedure field</b>	Molecular Biology and Genetics
<b>Applicant</b>	Mgr. Jiří Kohoutek, Ph.D.
<b>Applicant's home unit, institution</b>	Faculty of Science, Masaryk University
<b>Habilitation thesis</b>	Role of transcription cyclin-dependent kinases and their cyclins in cellular processes
<b><u>Board members</u></b>	
<b>Chair</b>	prof. RNDr. Jan Šmarda, CSc. <i>Faculty of Science, Masaryk University</i>
<b>Members</b>	prof. RNDr. Vladimír Kryštof, Ph.D. <i>PřF UP Olomouc</i> RNDr. Martin Pospíšek, Ph.D. <i>Department of Genetics and Microbiology, Faculty of Science, Charles University</i> prof. Vjačeslav Jurčenko, Ph.D., MSc. <i>Department of Biology and Ecology, Faculty of Science, University of Ostrava</i> Prof. Dr. Matthias Geyer <i>University of Bonn, Germany</i>

### Evaluation of the applicant's scholarly/artistic qualifications

Dr. Jiří Kohoutek is well qualified for a title of the Associate Professor of Molecular Biology and Genetics. He has solid theoretical background and practical skills acquired during his bachelor's and master's studies at the Faculty of Science at Masaryk University and, subsequently, during his doctoral studies at Mendel University in Brno, where he received his Ph.D. title in the field of Molecular Biology and Animal Genetics in 2003. His further scientific and research work was significantly accelerated by a five-year postdoctoral stay in the laboratory of Prof. Peterlin in the USA (Department of Medicine, University of California San Francisco). After returning to the Czech Republic in 2008, he continued his career as a group leader and, for several years, also as a Deputy Director and, for two years, as a Director of the Veterinary Research Institute in Brno. Thus, he gained experience in the organization and management of science. Since 2021, he has been working as an Assistant Professor at the Department of Experimental Biology at the Faculty of Science, Masaryk University. In his research, he focuses on the molecular mechanisms of transcriptional regulation, mainly those that are related to the maintenance of genome stability and embryonic development in mouse models. He is a co-author of 29 original scientific articles published in peer-reviewed journals, of which 20 are ranked in the first quartile and 4 in the second quartile. He has also co-authored a chapter in the prestigious book series "Current Topics in Microbiology and Immunology". At the time of submitting his habilitation thesis, his articles were cited 1,396 times and his H-index was 16. He has led four projects funded by the Czech Science Foundation and the Ministry of Health of the Czech Republic: three of them as a principal investigator and one – as a co-investigator. The Habilitation Board considers that the applicant's scientific performance is of very high quality in terms of originality, conceptual approach, and methodology.

**Conclusion:** The applicant's scholarly/artistic capabilities **meet** the requirements expected of applicants participating in a habilitation appointment procedure in the field of Molecular Biology and Genetics.

### Evaluation of the applicant's pedagogical experience

Although the applicant's tenure as an Assistant Professor in the Faculty of Science of Masaryk University is relatively short, he has already demonstrated a high level of pedagogical competence. He has been actively involved in teaching in the Molecular and Cell Biology program for foreign students, where he teaches one of the essential courses (2 hours per week) and leads the student seminar in English. He is also the only lecturer teaching the Genetics and Taxonomy of Viruses course (2 hours per week) for students of the master degree program in Virology. He also contributes significantly as a lecturer in the Essential Molecular Biology (2 hours per week) and Molecular Biology (3 hours per week) courses for undergraduate students in various biology programs. In addition, he has successfully demonstrated his pedagogical skills by teaching specialized seminars and three practical courses (in total 6 hours per week), each conducted in several parallel sessions. His contribution to teaching is significant and will continue to increase given the generational change in the Department of Genetics and Molecular Biology. The Habilitation Board also positively assessed Dr. Kohoutek's commitment to the scientific training and education of students: he supervised or is supervising 12 students: two Bachelor's, seven Master's, and three doctoral students. All three doctoral students successfully defended their theses under Dr. Kohoutek's supervision. His teaching activities also include serving on the committees for the state doctoral exams and defenses in the Molecular and Cell Biology and Genetics, and Physiology, Immunology and Developmental Biology of Animals PhD. degree programs, as well as on the two committees for the state final exams and defenses of the Master degree programs, heading one of them as the chairman. Overall, the Habilitation Board rates the candidate's achievements and his exemplary approach to pedagogical work very highly.

**Conclusion:** The applicant's pedagogical capabilities **meet** the requirements expected of applicants participating in a habilitation appointment procedure in the field of Molecular Biology and Genetics.

**Habilitation thesis evaluation**

The habilitation thesis is based on thirteen original scientific papers by the candidate, which have been published in renowned journals and which represent the most important professional milestones of his scientific career in the period between 2005 and 2025. The candidate's own publications included in the thesis, in which the scope and nature of the individual contribution are duly indicated, are preceded by a thirty-page review, in which the author describes the current state of knowledge on the cyclin-dependent kinases involved in the regulation of transcription, in particular CDK9, CDK12, and CDK13. The molecular mechanisms by which complexes of these kinases with cyclins control the function of RNA polymerase II are described. In addition, other molecules are presented that regulate the expression of genes involved in the repair of damaged DNA and thus contribute to the maintenance of the genetic stability. He also showed how important these processes are for proper embryonic development and the maintenance of homeostasis. The committee agreed that the habilitation thesis is of high technical and methodological quality and of great benefit to the scientific field, in which Dr. Kohoutek works. This opinion was also confirmed by the comments of the opponents of the habilitation thesis.

**Conclusion:** The applicant's habilitation thesis **meets** the requirements expected of habilitation theses in the field of Molecular Biology and Genetics.

### Secret vote results

Voting took place: electronically

Number of board members		5
Number of votes cast		5
of which	in favour	5
	against	0

### Board decision

Based on the outcome of the secret vote and following an evaluation of the applicant's scholarly or artistic qualifications, pedagogical experience and habilitation thesis, the board hereby submits a proposal to the Scientific Board of the Faculty of Science of Masaryk University to **appoint the applicant associate professor** of Molecular Biology and Genetics.

In Brno on 22.09.2025

prof. RNDr. Jan Šmarda, CSc.